



CITY OF LEESBURG

GROWTH MANAGEMENT PLAN
TRANSPORTATION ELEMENT

Ordinance #xxxxx

Exhibit A

Adopted xxxxxxxxx

Prepared For:

City of Leesburg
Community Development Department
214 N. Fifth Street
LEESBURG, FLORIDA 34749

Prepared By:

LPG Urban and Regional Planners
1162 Camp Avenue
Mount Dora, Florida 32757

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CHAPTER II TRANSPORTATION ELEMENT

A. INTRODUCTION

The City of Leesburg does participate in a Metropolitan Planning Organization (MPO). Therefore, the City is required to adopt a Transportation Element. Although the City is not required to adopt mass transit or ports, aviation, and related facilities elements because it has less than 50,000 residents, the City has opted to prepare and adopt an Aviation Element.

Lake-Sumter MPO has been actively coordinating the transportation issues in the County. The MPO adopted the Lake-Sumter Transportation 2035 Plan on December 8, 2010. This plan, addresses multi-modal transportation needs including highways, public transportation, bicycle, and pedestrian facilities needs and linkages between these modes to provide a coordinated transportation system. That plan emphasizes the movement of persons and goods by modes other than the automobile. It also pursued public input through a formal public involvement process.

The purpose of the City's Transportation Element is to plan for a transportation system that emphasizes the need to integrate vehicular traffic with pedestrian and bicycle traffic. The element encourages the development of compact, pedestrian-oriented urban areas; promotes energy efficient development patterns; and protects air quality.

An essential base for planning a transportation system is the Future Land Use Element. The Future Land Use Map determines where new or improved transportation facilities will be needed. The Transportation Element assesses the condition and capacity of the existing transportation facilities, projects future needs, sets Levels of Service (LOS) standards for roads and determines future system improvements. Roadway level of service standards is established to ensure that adequate facility capacity for future development is concurrently sufficient with the issuance of development orders and development permits. These standards are established for each roadway link consistent with the facility type, and current Florida Department of Transportation (FDOT) LOS guidelines.

B. INVENTORY

An efficient transportation system should provide access to various land uses through alternative transportation modes. The overview of the existing transportation system within the City of Leesburg provides the basis for analyzing existing transportation deficiencies and needs within the City.

This section will identify existing roadway facilities, availability of public transit, bicycle and pedestrian facilities, and other ancillary services and programs.

1. Road System

This section describes the major roadway facilities within the City and their relative function to the City's circulation system. The roads within the central City were developed based on a grid pattern, which provides good opportunities for connectivity. There are, however, several physical obstructions in the area such as lakes and existing land uses that interrupt that connectivity. All the major roads in the City are listed on Table II- 1 and displayed on Map II- 1. The following is a description of the major Federal and State roadways in the

City of Leesburg.

- ***Ronald Reagan Turnpike.*** The Turnpike is a four-lane toll expressway running from Sumter County to Dade County. It provides a linkage from Interstate 75 in Sumter County to the Orlando urban area. There are currently three interchanges within Lake County – at US 27 south of Leesburg, and SR 19 between Groveland and Tavares, and CR 470, southwest of downtown Leesburg. The majority of the traffic served by the Turnpike is passing through, rather than having destinations within Lake County.
- ***U.S. Highway 27 (SR 25).*** U.S. Highway 27 is a north-south corridor located in the western portion of Lake County. It provides a linkage to I-4 in Polk County to the south, extends through the City of Clermont; and, merges with US 441 in Leesburg. It is currently a four-lane divided arterial, and operates at good levels of service. The portion of US 27 between the Turnpike and the Polk County line is a part of the Florida Intrastate Highway System. US 27 is known in Leesburg as 14th Street, except when it merges with US 441. This dual road is also called Citrus Boulevard.
- ***US Highway 441 (SR 500).*** The most heavily traveled arterial in Lake County is U.S. Highway 441, which extends through the County from the northwest to the southeast. The majority of the County’s development is served by this corridor, such as the Leesburg Regional Airport, major shopping centers, and medical centers. Currently, US 441 is a four and six-lane divided arterial. In Leesburg, routes US 27 and US 441 merge to become one roadway. The highest volumes on US 441 are carried on the sections between Leesburg and the “Golden Triangle” of Tavares, Eustis and Mount Dora. US 441 is known in Leesburg as North Boulevard, except where it joins US 27.
- ***State Road 44.*** This road links the Leesburg area to Interstate 75 through Sumter County, and links SR 19 in Eustis eastward to Deland in Volusia County. In Leesburg and Eustis, it is a four-lane highway, and in the eastern areas it has two lanes. SR 44 is known in Leesburg as South Dixie Highway.

The State Road system is supplemented by County and municipal streets, which provide land access and, in some cases, alternative travel routes. The County road system is predominantly a network of two-lane highways.

a. Jurisdiction and Maintenance Responsibility

Table II- 1 and Map II- 2 show the maintenance responsibility of each roadway in the City of Leesburg. There are four state roadways, US 27, US 441, the Ronald Reagan Turnpike, and SR 44; and four major County roadways, CR 44, a two-lane road extending from us 441 to SR 19; Main Street, a two-lane road extending from SR 441 to SR 44 through downtown Leesburg; Griffin Road (CR 44A); and Thomas Avenue (CR 44C).

Several minor roadway segments under City or County jurisdiction have also been included in the classification because of their impact on the overall traffic. They include Lee Street, Canal Street, Lake Street, Lone Oak Drive, and Sunnyside Drive.

b. Functional Classification

Table II- 1 and Map II- 1 show the functional classification of major roads in the City of Leesburg. The functional classification of public roads in this element is based on FDOT criteria, which considers quantitative and qualitative factors such as jurisdiction, land access, route length, and trip lengths. A road hierarchy is used to identify relative importance of roads within the system, provide guidance for level of service and design standards, aid in establishing improvement priorities, identify maintenance responsibility, and assist in determining funding and financing policies. The hierarchy used in this element includes:

Arterials: Provide regional mobility via both uninterrupted flow and interrupted flow segments. Arterials provide mobility around and through urban and community cores, and accommodate relatively long trip lengths as opposed to providing access to adjacent properties. **Minor arterials** provide for intra-county circulation, higher volumes, speeds, and trip lengths. **Principal arterials** provide for high speed, long trips, and high traffic volumes serving inter-county travel.

Collectors: Provide for movement between local streets and the arterial network. Collectors serve residential, commercial and industrial areas. **Minor collectors** collect traffic from local streets and access roads of higher function. **Major collectors** serve higher volumes of traffic at moderate to high speeds, connecting rural and urban areas.

Local roads: Provide direct access to abutting properties. Local roads accommodate traffic originating in or traveling to properties within a neighborhood, commercial or industrial development. Local roads are not considered part of the major thoroughfare system.

c. Constrained Facilities

Section 339.155, Florida Statutes, makes governmental police powers available to preserve and protect property necessary for transportation corridors and recommends that needed right-of-way be acquired as far in advance of construction as possible. FDOT requests that local governments identify constrained roadways in their comprehensive plans to ensure maintenance of the operating conditions, so that significant degradation in the level of service does not occur.

A constrained roadway is one in which adding two or more through lanes to meet current or future needs is not possible due to physical, environmental or policy barriers. Map II- 3 shows the existing number of lanes of all roads. The County has established, by policy, a maximum number of lanes allowed on major roads:

No more than six lanes: US 441/US 27 and SR 44 west of US 27.

No more than four lanes: SR 44 east of US 27, US 27 south of US 441, CR 468, Griffin Road, CR 460, CR 48, CR 33, CR 466, Grays Airport Road, and Eaglenest Road.

No more than two lanes: CR 466A & B and Main Street.

d. Accident Locations

Accident analysis is critical because it provides a tool for City, County and state officials to recommend appropriate safety measures. Accident frequency along with roadway performance can be used to prioritize future roadway needs. Table II- 2 shows accident data occurring between 2006 and 2010 as compiled Lake Sumter MPO. The table shows those road segments with the highest frequency of accidents during the specified time period. The road segment with the largest number of accidents was the intersection of US 27 and SR 91 with 157 accidents during the years 2006 - 2010, followed by the intersection of US 27 and Dixie Avenue with 152 accidents during the same period. Within the City of Leesburg, signalized intersections are located mainly along principal and minor arterials.

e. Evacuation Routes

The City of Leesburg has an adopted Disaster Operations Plan as a supplement to Lake County's Peacetime Emergency Plan, which was approved by the Board of County Commissioners and the State of Florida Department of Emergency Preparedness. The City also adopted the Fire Department Disaster Operations Plan in June 2001 to provide for the organized mobilization of fire department personnel and resources in the event of a disaster.

For large-scale disasters, the City follows the County's Peacetime Emergency Plan. This document does not identify evacuation routes, as Leesburg is a host city for evacuees from coastal cities, but lists the shelters available. There are currently 10 shelters in Leesburg. Map II- 4 shows the roads that serve as evacuation routes.

f. Goods Movement

Much of the goods movement in Lake County consists of trucking of dry goods for retail sales and agricultural goods. Lake County has no adopted truck route system; however, much of the goods movement demand is served by the State Road System.

A significant quantity of freight transportation occurs on the Ronald Reagan Turnpike passing through Lake County. This has led to existing and planned distribution and warehousing facilities in the vicinity of the Ronald Reagan Turnpike (at the U.S. 27 and S.R. 19 interchange). Much of this goods movement associated with these activities is solely dependent upon the Ronald Reagan Turnpike and no improvements are recommended for this facility. Public Transportation

2. Public Transportation

The public transportation service in the Leesburg area and surrounding jurisdictions is provided by Lake County Transit operated by Lake County Department of Community Services. The agency provides public transportation services of two different types: (1)

LakeXpress provides public transportation along the Highway 441 corridor on a fixed route.(2) Lake County Connection provides Paratransit service, a countywide demand-responsive transportation system for the transportation disadvantaged. The coverage of the demand-responsive transportation system is the entire County, which is a subsidized taxi type of transportation service. The alignment of the LakeXpress bus route is indicated in Map II- 5. These services are available to the general public on a fare basis, and to the transportation disadvantaged on a subsidized fare basis. Service is provided from 6 am to 7 pm, Monday through Friday (24 hours per day, seven days per week if prior arrangements are made). According to the Lake County Transit Development Plan 2011 Annual Progress Report, current ridership is 283,273 riders per year on all routes of the system. This averages to 776 riders per day on all routes of the system.

The first major update to Lake County's Transit Development Plan was undertaken in 2008. Subsequent updates were undertaken in 2010 and 2011. The updates provide an opportunity for the Lake County Public Transportation Division (the transit agency responsible for public transportation in Lake County) to compare events that have occurred over the last year to the previous major TDP update and to revise the plan, as appropriate, to address those changes.

The major transit generators/attractors in and around the City of Leesburg include the U.S. 441 Commercial Corridor, as well as the following, which are displayed on Map II- 5 as the corresponding numbers.

1. Downtown Leesburg
2. Leesburg Regional Medical Center
3. West 44 Industrial Center
4. Lake Sumter Community College
5. Lake Square Mall
6. Leesburg Regional Airport

3. Parking System

The City of Leesburg has a parking structure at the corner of Meadow and Palmetto Streets as well as a number of small parking lots in the downtown that serve the area businesses. These facilities are free to the public.

4. Bicycle System

The City of Leesburg has a citywide bicycle system in place with great potential for expanding the bicycle route network. There are two abandoned rail lines that the City is using as trails. One is an east-west rail spur line going from Wildwood to just past the Cutrale juice plant. The other line is a smaller spur line that goes north from the main line to near the north corporate limits of Leesburg. Map II- 6 depicts existing and proposed bicycle facilities.

In 1999, the City prepared a plan for a Downtown trail. The report, entitled "City of

Leesburg – Downtown Multi-Purpose Trail”, was prepared with a grant from the Florida Department of Environmental Protection, Office of Greenways and Trails. The downtown trail project acquired new interest with the improvements to the City’s downtown area and the FDOT project to widen US 441 into the City. The road widening plans involve the construction of a bike/pedestrian facility that will connect the Cities of Tavares and Leesburg, passing through the Lake-Sumter Community College, several parks and the commercial district along the highway. That project is known locally as the “TAV-LEE Trail”. The City created the Downtown Multi-Purpose trail project to connect the downtown to the TAV-LEE Trail, and also to provide a link to the Leesburg-Okahumpka Trail, which is an interconnecting loop within the Central Florida Loop Trail System. The Leesburg-Okahumpka Trail depends mostly on an abandoned rail right-of-way, and provides a connection to Flat Island, an environmental preserve, prior to continuing southward to the General Van Fleet Trail.

The Downtown trail extends approximately three quarters of a mile, from 12th Street (Mote-Morris House) to Venetian Gardens. The City has actively been pursuing the purchase of the CSX right-of-way for other trails in the City. A Citywide master plan for bicycle and pedestrian facilities has been prepared to create an efficient and integrated system. Lake County has been developing bicycle facilities, including bicycle lanes, paved shoulders, and off-road bicycle paths. The Lake-Sumter MPO Transportation 2035 Plan shows that there are bicycle facilities along SR 44 from West Main Street to US 27; along US 27 from SR44 to CR 48; and along CR 33 from US 27 to the area south of the Turnpike.

5. Pedestrian System

The City does not keep an inventory of pedestrian facilities. Existing sidewalks are generally found in the downtown area, and along principal and minor arterials. Lake-Sumter MPO Transportation 2035 Plan shows sidewalks mainly along SR 44, and US 27 with 90 to 100 percent coverage; and along US 441 and US 27 with 65 to 90 percent coverage. When complete, the City of Leesburg Downtown Multipurpose Trail will serve to provide bicyclists and pedestrians with the core segment that will bind community neighborhoods, businesses, schools, hospitals, parks, library, museum, and other governmental and private uses.

6. Inter-modal Facilities

Inter-modal facilities are those transportation elements that accommodate and interconnect different modes of transportation and serve interstate, intrastate and international movement of people and goods. Some facilities considered inter-modal include ports, airports, bus stations and train terminals. The Inter-modal Surface Transportation Efficiency Act (ISTEA) legislation encourages the provision of efficient access to these inter-modal facilities.

The Transportation Element is intended to address major thoroughfares and transportation routes, including bicycle and pedestrian ways. Other modes of transportation such as public transportation, aviation, rail, and port facilities are normally addressed in Transportation Elements (required for larger urban jurisdictions located within an MPO). The City of Leesburg has opted to prepare an Aviation Element. This section briefly describes other

modes of transportation available to City residents.

The County is serviced by Greyhound Transportation Services with bus terminals at various locations. The closest terminal is located at 1006 South 14th Street. Currently, there are no active railways within the City of Leesburg.

Leesburg International Airport is located approximately three miles northeast of downtown Leesburg on U.S. 441. Leesburg International is a public use, general aviation airport, owned, operated, and maintained by the City of Leesburg. Leesburg International operates 189 aircraft based on the field and manages approximately 312 aircraft operations per day. Leesburg International Airport is discussed further in the Aviation Element of this Growth Management Plan.

C. TRANSPORTATION ANALYSIS

Transportation can have a major role shaping the spatial and functional organization of a community. It can determine the size, scale, status and identity of a community. However, there are other contributing factors that need to be considered, such as the personal, social, physical, environmental, economic and cultural attributes of the community. This section will analyze existing conditions of the transportation system to provide a comprehensive assessment of the various transportation facilities and services, and their relationship with existing land uses.

This section will also address growth trends, travel patterns, and interactions between land use and transportation, including the compatibility between future land uses and transportation systems. The transportation analysis was conducted using the adopted Florida Standard Urban Transportation Modeling Structure (FSUTMS), to ensure coordination with Lake County and other jurisdictions. The adopted FSUTMS model has traffic forecasting integrated with future transit services simulation. The Florida Department of Transportation (FDOT) has established FSUTMS as the standardized travel model for the State.

Future travel demand estimates are based on a land use inventory for 2010, and projection of land uses for the years 2015, 2020, and 2035. The County also incorporated information about trips that pass through Lake County, based on projected growth in surrounding counties, historical growth trends for traffic counts, and review of the Ronald Reagan Turnpike and Orlando Urban Area travel demand models (OUATS).

1. Socio-Economic Growth Trends

The 2010 U.S. Census reported a City population of 20,117. The population in 2005 was at 19,086. Population projections prepared by the City's consultants indicate that the City population will grow to approximately 65,710 residents by the year 2035.

2. Roadway Current Performance

The 1985 Growth Management Act established two important responsibilities for local governments. The first was to set level of service (LOS) standards for public facilities within the jurisdiction as part of the Comprehensive Plan. The second was to ensure that the public facilities and services proposed in the Capital Improvements Element of the local Comprehensive Plan were available concurrent with the development. Adopted level of

service standards should be achievable and financially feasible. The standards set a minimum service level that the City must maintain for each of the public facilities, including roadways.

The roadway LOS concept is defined in the Florida Department of Transportation (FDOT) 2009 Level of Service Handbook as a qualitative assessment of the road user's perception of the quality of flow, and is measured by a scale of driver satisfaction. The scale ranges from "A" to "F", with "A" generally representing the most favorable driving conditions and "F" representing the least favorable.

FDOT adopted statewide minimum level of service standards for the State highway system. The minimum level of service standards are used for planning applications, including the review of local government plans. The generalized maximum volume tables provided by FDOT are guidelines recommended for broad planning applications. They are to be used as a general guide to determine highway level of service and through-lane requirements.

Minimum level of service standards recommended for the state system are shown on Table II - 3. The standardized descriptions of service levels used in transportation planning are as follows:

- LOS A - A condition of road performance where traffic density is very low, with little or no restrictions in maneuverability. Drivers can maintain their desired speed with little or no delay.
- LOS B - A condition of road performance where traffic density is low and vehicles travel with operating speeds somewhat restricted by other vehicles. Drivers still have reasonable freedom to select their speeds.
- LOS C - A performance condition where operating speeds are determined by other vehicles, permitting a stable traffic flow. Drivers might have limitations to maneuver and to increase speeds.
- LOS D - A condition of road performance where traffic density is high but tolerable. Fluctuations in traffic volumes may cause reductions in operating speeds. Drivers have little freedom to maneuver. In some instances, traffic flows approach unstable conditions.
- LOS E - Represents traffic operation near the roadway capacity or maximum service volume. Vehicles flow at unstable conditions. Stop-and-go situations may happen. In freeways or limited access roads, speeds are near thirty (30) miles per hour and traffic density is high.
- LOS F - This condition usually results from long lines of vehicles backing up because the traffic volume exceeds the roadway capacity. The vehicles are forced to operate at very low speeds. Stop-and-go situations are frequent and in extreme cases, vehicles stop for long periods of time.

The revised 2009 FDOT Generalized Tables were used to evaluate roadway performance in the City of Leesburg are shown on Table II- . The 2009 FDOT Generalized Tables are expressed in terms of peak hour directional volumes and account for peaking characteristics within the hour. Peak hour directional tables are provided because traffic-engineering analyses are conducted on an hourly or sub-hourly basis. The travel demand model results are expressed in average daily traffic (ADT). The K factor utilized to convert ADT into

peak hour directional traffic were 0.092 for roads in urbanized areas, and 0.094 for roads in transitional areas.

Table II-1 shows the existing levels of service for each major thoroughfare in Leesburg. A level-of-service analysis was performed to determine existing deficiencies. The capacity analysis was based on the FDOT Generalized Peak Hour Directional Maximum Service Volumes for different roadway types.

As represented in , several road segments within the City of Leesburg have a LOS F, which results from the “funnel effect” associated with Lakes Harris and Griffin, as well as from a high volume of through-traffic, such as truck routes, utilizing segments of U.S. 441 and S.R. 44.

The inventory and analysis of the existing traffic circulation conditions involved reviewing the physical and operational characteristics of the major thoroughfares serving the City of Leesburg, measuring its performance using the 2010 FDOT Generalized Tables maximum service volumes by level of service. Traffic counts taken by FDOT in 2009 were compared with the figures included in the model for validation. The counts were very close with the exception of US 27, between CR48 and the City’s south City limits.

and Map II- 7 show the current traffic conditions in the City of Leesburg. Several roadway segments tested exceed the physical capacity of the facility. All those that are deficient, however, are either State or County roads.

3. Future Roadway Performance

The Florida Standard Urban Transportation Model Structure (FSUTMS) was used for all of the city's travel demand forecasting. Consistency with the Lake County model data and traffic zone structure was maintained through the process in forecasting the City's travel demand.

a. Projected Levels of Service

Table II-1 shows the 2015, 2020 and 2035 traffic conditions. Several State and County roadways will perform below the adopted level of service standards. The County and local roads that have a level of service F under the 2035 cost feasible scenario are as follows:

- Griffin Road - from Thomas Road to US 441
- Main Street – from U.SUS 27 to Canal Street
- SR 44 – from Sumter County Line to CR 468
- Dixie Avenue – from East Main Street to US 441
- US 441 – from CR 460 to US 27/441 split
- US 27 - from SR 44 to CR 33
- US – 441 from Canal Street to Radio Road

This LOS F is due to the funnel effect caused by natural features, a condition which cannot be changed, and is therefore, beyond the City's control. One example is Main Street, which is constrained. C.R. 470, however, will be improved when the interchange is built. The City is not responsible for improvements to State or County roads.

The City of Leesburg has limited financial resources to address all of the potential transportation system needs identified in its Transportation Element. Therefore, intergovernmental coordination is critical. The Lake-Sumter MPO Transportation Improvement Program (TIP) and the Lake-Sumter MPO Transportation 2035 Plan provide a list of committed and proposed roadway projects and transportation studies impacting the City of Leesburg. Table II-shows the applicable road projects contained in that plan. The traffic simulation process was accomplished in the following steps.

(1) Methodology

(1) Transportation Network Development

Network development is the process of simulating alternative roadway and transit systems through computer modeling. The Lake County model provided the base year and future model data for simulation.

(2) Trip Generation

Trip Generation is performed by converting socioeconomic variables to person trips through a series of multiple regression equations. The outputs from this process are trip productions and attractions by traffic zone and by trip purpose. The six basic trip purposes are: Home-Based Work, Home-Based Personal Business, Home-Based Social-Recreational, Home-Based Shopping, Home-Based School, and Non-Home Based.

Special generators are land uses with unusual trip production and attraction features such as airports, colleges or universities.

(3) Trip Distribution

The Trip Distribution process is based on a "Gravity" simulation and trips are directly distributed depending on land use attractiveness and inversely distributed depending on travel time and distances. If the concentration of land uses is intense, more trips get distributed. Inversely, if the travel time and distances are longer, fewer trips get distributed. The trip distribution module from the model was used to assess the future transportation conditions.

(4) Mode Split

Mode Split is used to determine the proportion of person trips by transportation mode. The model provided is a "Highway Only" model and no transit lines are included. The impact of transit ridership on traffic assignment is not significant enough to warrant its inclusion.

(5) Trip Assignment

The Trip Assignment process simulates how many automobiles and buses are traveling on the transportation system. In this process, trips produced in one traffic zone are "added" according to the distribution patterns, into different roadways conducting to all other traffic zones. This process is repeated until all traffic zones are assigned and equilibrium is reached. An Equilibrium Assignment process was used in the model to estimate the future traffic conditions. Traffic count information from all available sources was provided and was compared with the actual model results for general validation purposes.

4. Other Transportation Systems

The City's current transportation network is based primarily on a road network serving vehicular traffic. At this time, there is little occurring with other means of transportation. The City needs to continue establishing facilities that will encourage the use of alternative transportation systems.

Bicycling is a viable mobility alternative. Bicycle networks provide a commuting alternative as well as a recreational asset. The City has made efforts to establish a bicycle system. It is the policy of FDOT to consider adding bicycle facilities to arterials, and wide curb lanes to collectors when the roads are improved within urbanized areas. The City will need to closely coordinate with the County and FDOT to achieve a more efficient and integrated bicycle system within the City.

Pedestrian mobility is greatly influenced by the mix and proximity of land uses as well as the availability of adequate sidewalks and other pedestrian facilities. Adequate land uses and appropriate urban design would encourage walking for short trips and for accessing transit facilities and services. The City's Land Development Code currently requires developers to provide sidewalks in new subdivisions.

Parking is an essential component of the overall transportation system. The decision of a commuter to drive alone or to use alternative transportation modes such as ride-sharing or public transit depends to a large extent on the cost, accessibility and availability of parking. As the City grows the need for these types of facilities will increase.

Public transit improvements offer the potential to significantly increase the capacity of the transportation network. One average size bus at capacity can carry as many passengers (approximately 40 persons) as 10 or more private automobiles. Successful transit systems emphasize the land use and travel demand relationship necessary to address congestion problems. The most important factors in encouraging transit use are mixed land uses and an urban form, which provides street connectivity and access to the pedestrian, transit and

bikeway systems.

Transit facilities and multi-modal terminals also are important for the success of the transit system. These facilities allow for transfers among the various modes within the transportation system.

Public transit level of service criteria is based on the operational and service characteristics of the transit system. Operational characteristics include the number of vehicles operated in maximum service, the amount of service supplied, the average speed, and the number of days the service is provided. Service characteristics include geographic location and service area population. The local transit provider normally monitors these characteristics, but as the public transit system in Leesburg expands, the City could be monitoring levels of service for transit performance based on headway standards. Headway is the time that separates vehicles moving in the same direction on the same route or track. The emphasis should be on reducing headways to encourage public transit ridership.

5. Future Transportation Plan

This section provides recommendations for creating a safe, convenient, and energy efficient transportation system, coordinated with future land uses, plans and programs of Lake County and FDOT.

Since World War II, roadways have been designed primarily for automobiles. Very little attention has been given to accommodating other modes of transportation such as bicycles, pedestrians, and transit. The goal of this Transportation Element is to look at roads as multi-modal transportation corridors, and design them accordingly.

Intergovernmental coordination is essential for the most cost-effective provision of transportation system improvements. Clearly, the City of Leesburg does not possess the resources nor is it fiscally responsible for the entire transportation system within the City. Lake County and FDOT have financial responsibility for county roads and state highway system roads, respectively. Therefore, it is necessary for the City to review the transportation improvement plans and programs prepared by the Lake-Sumter MPO, Lake County and FDOT. In this way, the effort and dollars expended by the City to improve its transportation system may be complemented and perhaps enhanced by the activities of the County and FDOT.

One area of coordination should include the preservation and protection of rights-of-way for identified future roadway improvements and construction. With the escalating value of land and costs entailed in right-of-way acquisition it is essential that the City protect roadway corridors in advance from building encroachment. Increased right-of-way costs reduce the funds available for actual construction. The City needs to utilize such techniques as setback requirements, zoning restrictions, right-of-way protection regulations and official transportation maps to preserve and protect existing and future rights-of-way. Other measures are discussed in the policy section.

As referred to above, the City is working closely with Lake-Sumter MPO on future transportation provision. It is recognized by all agencies involved in the MPO that without changing the way we plan for future transportation needs, a number of major highways will

exceed their adopted levels of service in the future. It is further recognized that it is not possible to continually widen roads, and that alternative forms of transportation need to be addressed. To this end, the Lake-Sumter MPO Transportation 2035 Plan includes a number of goals and strategies to achieve such a plan. These include:

- a) Identifying multi-modal corridors to support increased transit efficiency and strengthen for walking and biking along these corridors.
- b) Promoting land uses which encourage the use of bicycles, walking and public transit.
- c) Promoting alternative solutions such as Park and Ride lots, ride sharing, vanpools, flextime, telecommuting, job access and reverse commute programs.

This represents a shift in direction for the MPO to move away from addressing mobility needs through roadway widening alone. In February of 2008, the Lake-Sumter MPO adopted policy 2008-1, The Corridor Constraint Policy. The purpose of this policy is:

- a) To preserve rural character in areas where existing conditions and land use designations do not require the need for additional capacity.
- b) To limit the extent to which corridors will be widened in order to prevent roadways from becoming dividing factors within communities or to prevent widening projects causing the erosion of viable neighborhoods or districts.
- c) To enhance the regional transportation network, spread demand for transportation capacity and maximize access to communities and centers.
- d) To promote the goal of migrating away from capacity improvements through the addition of lanes and to promote the migration toward additional capacity through mass transit improvements along appropriate arterial corridors.
- e) To prevent a misallocation of fiscal resources

In particular, US 27, US 441 and SR 44 are all identified as “Constrained Roadways” The Transportation 2035 Plan therefore identifies these roadways as “Multimodal Corridors” where the emphasis will be on alternative methods of providing for transportation needs rather than road widening.

The City supports this approach and has developed a number of policies to assist in encouraging such a multi-modal approach. Future roadway design will need to incorporate bicycle, pedestrian and transit features to achieve a true multi-modal system. In addition to incorporating roadway design standards in the City’s Land Development Code, the City will start requiring that new developments be interconnected to enhance the transportation network. Development design must provide connectivity and access between adjacent residential developments and nearby land uses. Traffic calming techniques can be used to protect neighborhoods.

a. Future Transportation Map

The purpose of a Transportation Map is to graphically depict the location of all proposed transportation systems. Based on the fact that Leesburg is served by a

number of State and County roads, and only one City road (Thomas Avenue) is not performing at unacceptable levels, not many improvements will be necessary in terms of new City road construction. Instead, future improvements will concentrate on upgrading certain roads to handle increased traffic, and coordinating with the State and County. Map II- 9 presents the proposed Future Transportation Map for the City of Leesburg. This map shows the proposed roadway functional classification and number of lanes for each roadway segment. Roadway capacity is based on the functional classification and number of lanes. The level of service standard selected for each roadway was based either on its present or forecasted performance. The map shows the network as it is planned for the year 2035, with several roads at a LOS D, which is an acceptable standard. The map accounts for roadway projects included in the DOT and County programs (see Table II-5).

b. Future Pedestrian Plan

The analysis of existing pedestrian conditions found that in order to develop a pedestrian improvement/construction program, a citywide inventory of sidewalks, crosswalks and other pedestrian facilities must be completed. By identifying missing links in the pedestrian system, the inventory will allow prioritization of improvements. Implementation of these improvements will provide pedestrian connectivity to the overall transportation system.

c. Future Bicycle Plan

The existing bicycle path system needs to be expanded. The Lake-Sumter Transportation 2035 Plan identifies multimodal corridor designations on US 441, US 27 and SR 44. These designations indicate prioritization of project improvements along select corridors to improve transit quality of service, operational strategies to improve traffic flow, select intersection improvements to enhance mobility and pedestrian safety, designated bike lanes or parallel bike routes, and multimodal infrastructure improvements in ‘centers’ located along these corridors to support urban design and land use patterns where walking, biking and utilizing transit are encouraged as primary modes of transportation. The City will coordinate with the County and the State to make sure that any new bicycle paths/lanes are integrated into the City system. Map II- 6 shows the existing and proposed bicycle system.

Table II- 1: Major Thoroughfares

City Of Leesburg Short and Long Range Level of Service Analysis

ROAD NAME	FROM	TO	NUMBER OF LANES	AREA TYPE	MAINTAINING AGENCY	JURISDICTION	FUNCTIONAL CLASSIFICATION	FDOT LOS STD.	2010 LOS	2015 LOS	2020 LOS	2035 LOS
C.R. 25A	US 27 (NORTH)	US 27 (SOUTH)	2	U	COUNTY	LEESBURG	COLLECTOR	D	B	B	B	B
C.R. 449 (SILVER LAKE)	MORNINGSIDE DRIVE	US 441	2	U	COUNTY	LEESBURG	COLLECTOR	D	B	B	B	C
C.R. 44A (GRIFFIN ROAD)	THOMAS ROAD	US 27/US 441	2	U	COUNTY	LEESBURG	COLLECTOR	D	C	C	F	F
C.R. 44C (GRIFFIN ROAD)	CR 468	THOMAS ROAD	2	U	COUNTY	LEESBURG	MAJOR COLLECTOR	D	B	B	B	C
C.R. 460	THOMAS ROAD	US 27	2	U	COUNTY	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
C.R. 48	SUMTER COUNTY LINE	CR 33	2	T	COUNTY	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
CANAL STREET	US 441	MAIN STREET	2	U	LEESBURG	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
CANAL STREET	MAIN STREET	SR 44	2	U	LEESBURG	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
GRIFFIN ROAD	US 27	LEE STREET	2	U	LEESBURG	LEESBURG	COLLECTOR	D	B	B	B	B
LAKE STREET	US 441	MAIN STREET	2	U	LEESBURG	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
LAKE STREET	MAIN STREET	SR 44	2	U	LEESBURG	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
LEE STREET	GRIFFIN ROAD	US 441	2	U	LEESBURG	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
LEE STREET	US 441	MAIN STREET	2	U	LEESBURG	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
LONE OAK DRIVE	MAIN STREET	SR 44	2	U	LEESBURG	LEESBURG	MAJOR COLLECTOR	D	B	B	B	B
MAIN STREET (LEESBURG)	CR 468	THOMAS AVENUE	2	U	COUNTY	LEESBURG	ARTERIAL 1	D	B	B	C	C
MAIN STREET (LEESBURG)	THOMAS AVENUE	US 27	2	U	COUNTY	LEESBURG	ARTERIAL 1	D	B	B	C	C
MAIN STREET (LEESBURG)	US 27	LEE STREET	2	U	COUNTY	LEESBURG	ARTERIAL 1	D	C	C	C	F
MAIN STREET (LEESBURG)	LEE STREET	CANAL STREET	2	U	COUNTY	LEESBURG	ARTERIAL 1	D	C	C	C	F
MAIN STREET (LEESBURG)	CANAL STREET	LAKE STREET	2	U	COUNTY	LEESBURG	ARTERIAL 1	D	B	B	B	B
MAIN STREET (LEESBURG)	LAKE STREET	DIXIE AVENUE / SR 44	2	U	COUNTY	LEESBURG	ARTERIAL 1	D	B	B	B	B
MAIN STREET (LEESBURG)	DIXIE AVENUE / SR 44	NICHOLS DR./SUNNYSIDE DR.	2	U	COUNTY	LEESBURG	COLLECTOR	D	B	B	B	C
SLEEPY HOLLOW ROAD	US 441	SUNNYSIDE DRIVE	2	U	COUNTY	LEESBURG	COLLECTOR	D	B	B	B	C
SR 44	SUMTER COUNTY LINE	CR 468	4	U	STATE	LEESBURG	ARTERIAL 1	D	F	F	F	F
SR 44	S LONE OAK DRIVE	US 27	4	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	B	B
SR 44 (DIXIE AVENUE)	US 27	S 9TH STREET	4	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	B	C
SR 44 (DIXIE AVENUE)	S 9TH STREET	CANAL STREET	4	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	B	C
SR 44 (DIXIE AVENUE)	CANAL STREET	S LAKE STREET	4	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	B	C
SR 44 (DIXIE AVENUE)	S LAKE STREET	E MAIN STREET	4	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	B	C
SR 44 (DIXIE AVENUE)	E MAIN STREET	US 441	4	U	STATE	LEESBURG	ARTERIAL 2	D	F	F	F	F
SUNNYSIDE DRIVE	MAIN ST./DR NICHOLS DR.	SLEEPY HOLLOW ROAD	2	U	COUNTY	LEESBURG	COLLECTOR	D	B	B	B	C
SUNNYSIDE DRIVE	SLEEPY HOLLOW ROAD	BRIDGEWATER COURT	2	U	COUNTY	LEESBURG	COLLECTOR	D	B	B	B	B
THOMAS AVENUE	CR 460	CR 44A	2	U	COUNTY	LEESBURG	COLLECTOR	D	B	C	C	F
THOMAS AVENUE	GRIFFIN ROAD (CR 44A)	MAIN STREET	2	U	LEESBURG	LEESBURG	COLLECTOR	D	B	B	C	D
US 27/US 441	CR 460	CR 466A (LEE ROAD)	6	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	C	F
US 27/US 441	CR 466A (LEE ROAD)	CR 44A/GRIFFIN ROAD	6	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	C	F
US 27/US 441	CR 44A/GRIFFIN ROAD	US 27/US 441 SPLIT	6	U	STATE	LEESBURG	ARTERIAL 2	D	C	D	D	F
US 27/SR 25	US 27/US 441 SPLIT	MAIN STREET	4	U	STATE	LEESBURG	ARTERIAL 2	D	C	C	D	D

US 27/SR 25	MAIN STREET	SR 44	4	U	STATE	LEESBURG	ARTERIAL 2	D	C	C	C	D
US 27/SR 25	SR 44	CR 25A (SOUTH)	4	U	STATE	LEESBURG	ARTERIAL 2	D	D	D	D	F
US 27/SR 25	CR 25A (SOUTH)	CR 33	4	U	STATE	LEESBURG	ARTERIAL 2	D	D	D	D	F
US 441/SR 500	US 27/US 441 SPLIT	LEE STREET	4	U	STATE	LEESBURG	ARTERIAL 2	D	C	D	D	E
US 441/SR 500	LEE STREET	N CANNAL STREET	4	U	STATE	LEESBURG	ARTERIAL 2	D	C	C	D	E
US 441/SR 500	N CANNAL STREET	E DIXIE AVENUE	4	U	STATE	LEESBURG	ARTERIAL 2	D	D	D	D	F
US 441/SR 500	E DIXIE AVENUE	E MAIN STREET	6	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	C	F
US 441/SR 500	E MAIN STREET	CR 44	6	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	C	F
US 441/SR 500	CR 44	RADIO ROAD	6	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	C	F
US 441/SR 500	RADIO ROAD	CR 473	6	U	STATE	LEESBURG	ARTERIAL 1	D	B	B	B	C

NOTES:

Functional Classification as defined by Chapter 335, Florida Statutes; Arterial Group as classified by Lake County.

of Lanes: D - Divided (physical median), U - no median or continuous left turn lane.

Group: T-Transitional; U-Urban

Sources: City of Leesburg, 2020 Lake County Transportation Plan and model, Lake Sumter MPO.

Table II- 2: Accident Locations, 2006 - 2010

Road	Cross Reference	# Accidents
US 27	SR 91	157
US 27	Dixie Ave.	152
US 27	North Blvd.	151
US 441	Sleepy Hollow Rd.	143
US27	CR 48	95
US 441	Bluegill Dr.	82
U 441	Radio Road	79
US 27	MLK Blvd.	71
US 27	Main Street	67
US 27	Citizens Blvd.	65
US 441	College Drive	64
US 24	SR 19	62
US 441	Dixie Ave.	61
US 27	Hill Street	59
US 27	Tally Road	59
US 27	Center Street	56
SR 44	CR 468	55
US 27	Marion Street	53
US 441	CR 44	53
US 441	Tomato Hill Rd.	52
US 441	Lakes Blvd.	52
US 441	Glen Ridge Drive	42
US 441	Sunshine Ave.	41
US 27	North Shore Dr.	41

Source: Lake Sumter MPO

Table II- 3: FDOT Minimum Level of Service Standards

	Transitioning Urbanized Areas, Urban Areas, or Communities	Urbanized Areas Under 500,000	Urbanized Areas Over 500,000	Roadways Parallel to Exclusive Transit Facilities	Inside Transportation Concurrency Management Areas	Constrained and Backlogged Roadways
INTRASTATE						
Limited Access Highway (Freeway)	C	C(D)	D(E)	D(E)	D(E)	Maintain
Controlled Access Highways	C	C	D	E	E	Maintain
OTHER STATE ROADS						
Two-Lane	C	D	D	E	*	Maintain
Multilane	C	D	D	E	*	Maintain

* Means the level of service standard will be set in a transportation mobility element that meets the requirements of Rule 9J-5.0057.

Note: Level of service standards inside of parentheses apply to general use lanes only when exclusive through lanes exists.

SOURCE: FDOT 1998 Level of Service Handbook.

Table II- 4: Generalized Tables – Peak Hour Directional Volumes (Page 1 of 2)

TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's
Urbanized Areas¹

10/4/10

STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (>0.00 to 1.99 signalized intersections per mile)						Lanes	B	C	D	E	
Lanes	Median	B	C	D	E	2	2,200	3,020	3,720	4,020	
1	Undivided	510	820	880	***	3	3,300	4,580	5,580	6,200	
2	Divided	1,560	1,890	1,960	***	4	4,400	6,080	7,420	8,400	
3	Divided	2,400	2,860	2,940	***	5	5,500	7,680	9,320	10,580	
4	Divided	3,240	3,830	3,940	***	6	7,560	10,220	12,080	12,780	
Class II (2.00 to 4.50 signalized intersections per mile)						Freeway Adjustments					
Lanes	Median	B	C	D	E	Auxiliary Lanes	Ramp Metering				
1	Undivided	**	560	810	860	+ 1,000	+ 5%				
2	Divided	**	1,330	1,770	1,870						
3	Divided	**	2,080	2,680	2,830						
4	Divided	**	2,830	3,590	3,780						
Class III/IV (more than 4.50 signalized intersections per mile)						UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	B	C	D	E	Lanes	Median	B	C	D	E
1	Undivided	**	270	630	790	1	Undivided	400	800	1,140	1,440
2	Divided	**	670	1,500	1,700	2	Divided	1,770	2,560	3,320	3,760
3	Divided	**	1,050	2,330	2,570	3	Divided	2,660	3,840	4,980	5,650
4	Divided	**	1,440	3,170	3,450	Uninterrupted Flow Highway Adjustments					
Lanes	Median	Exclusive left lanes	Adjustment factors								
2	Divided	Yes	+5%								
Multi	Undivided	Yes	-5%								
Multi	Undivided	No	-25%								
Non-State Signalized Roadway Adjustments						BICYCLE MODE ²					
(Alter corresponding state volumes by the indicated percent.)						(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
Major City/County Roadways - 10%						Paved Shoulder/ Bicycle Lane					
Other Signalized Roadways - 35%						Coverage	B	C	D	E	
						0-49%	**	170	650	>650	
						50-84%	130	200	>200	***	
						85-100%	340	>340	***	***	
State & Non-State Signalized Roadway Adjustments						PEDESTRIAN MODE ²					
(Alter corresponding state volumes by the indicated percent.)						(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
Divided/Undivided & Turn Lane Adjustments						Sidewalk Coverage	B	C	D	E	
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		0-49%	**	**	270	770	
2	Divided	Yes	No	+5%		50-84%	**	100	600	1000	
2	Undivided	No	No	-20%		85-100%	**	610	1000	>1000	
Multi	Undivided	Yes	No	-5%		BUS MODE (Scheduled Fixed Route) ³					
Multi	Undivided	No	No	-25%		(Buses in peak hour in peak direction)					
—	—	—	Yes	+ 5%		Sidewalk Coverage	B	C	D	E	
						0-84%	>5	≥4	≥3	≥2	
						85-100%	>4	≥3	≥2	≥1	
One-Way Facility Adjustment											
Multiply the corresponding volumes in this table by 1.20.											

¹ Values shown are presented as hourly directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. To convert to annual average daily traffic volumes, these volumes must be divided by appropriate D and K factors. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, Pedestrian LOS Model and Transit Capacity and Quality of Service Manual, respectively for the automobile/truck, bicycle, pedestrian and bus modes.

² Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

** Cannot be achieved using table input value defaults.

*** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Planning Office
605 Suwannee Street, MS 19
Tallahassee, FL 32399-0450

TABLE 7
(continued)

Generalized **Peak Hour Directional** Volumes for Florida's
Urbanized Areas

9/4/09

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities								
	Freeways	Highways		State Arterials						Class II		
				Class I		Class II		Class III		Bicycle	Pedestrian	Bus
ROADWAY CHARACTERISTICS												
Area type (I,o)	1	1	1	1	1	1	1	1	1	1	1	1
Number of through lanes	2-6	1	2-3	1	2-4	1	2-4	1	2-4	2	2	
Posted speed (mph)	65	50	50	45	50	45	45	35	35	45	45	
Free flow speed (mph)	70	55	55	50	55	50	50	40	40	50	50	
Aux, meter, or accel/decel ≥1500 (n,y)	n											
Median (n, nr, r)		n	r	n	r	n	r	n	r	r	r	
Terrain (L,r)	1	1	1									
% no passing zone		80										
Exclusive left turn lanes /[impact](n, y)		[n]	y	y	y	y	y	y	y	y	y	
Exclusive right turn lanes (n, y)				n	n	n	n	n	n	n	n	
Paved shoulder/bicycle lane (n, y)										n, 50%,y	n	
Outside lane width										t	t	
Pavement condition										t		
Sidewalk (n, y)											n, 50%,y	n,y
Sidewalk/roadway separation (a, t, w)											t	
Sidewalk protective barrier (n, y)											n	
Obstacle to bus stop (n, y)												n
Facility length (mi)	4	5	5	2	2	2	2	2	2	2	2	2
Number of segments	4											
TRAFFIC CHARACTERISTICS												
Planning analysis hour factor (K)	0.092	0.094	0.094	0.097	0.097	0.097	0.097	0.097	0.097	0.097	0.097	
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	
Peak hour factor (PHF)	0.95	0.925	0.925	0.925	0.925	0.925	0.925	0.925	0.925	0.925	0.925	
Base saturation flow rate (pcphpl)		1700	2100	1950	1950	1950	1950	1950	1950	1950	1950	
Heavy vehicle percent	4.0	2.0	2.0	2.0	2.0	2.0	2.0	1.5	1.5	2.0	2.0	
Local adjustment factor	0.98	1.0	0.98									
% left turns				12	12	12	12	12	12	12	12	
% right turns				12	12	12	12	12	12	12	12	
Bus span of service												15
CONTROL CHARACTERISTICS												
Number of signals				2	2	6	6	10	10	6	6	
Arrival type (1-6)				3	3	4	4	4	4	4	4	
Signal type (a, s, p)				a	a	s	s	s	s	s	s	
Cycle length (C)				120	120	120	120	120	120	120	120	
Effective green ratio (g/C)				0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	
LEVEL OF SERVICE THRESHOLDS												
Level of Service	Freeways	Highway Segments		State & Non-State Signalized Arterials			Bicycle	Pedestrian	Bus			
	Density	Two-Lane	Multilane	Class I	Class II	Class III	Score	Score	Buses per hr.			
B	≤17	≥0.833	≤18	> 34 mph	> 28 mph	> 24 mph	≤2.5	≤2.5	≥4			
C	≤24	>0.750	≤26	> 27 mph	> 22 mph	> 18 mph	≤3.5	≤3.5	≥3			
D	≤31	>0.667	≤35	> 21 mph	> 17 mph	> 14 mph	≤4.5	≤4.5	≥2			
E	≤39	>0.583	≤41	> 16 mph	> 13 mph	> 10 mph	≤5.5	≤5.5	≥1			

% ffs = Percent free flow speed ats = Average travel speed

2009 FDOT QUALITY/LEVEL OF SERVICE HANDBOOK

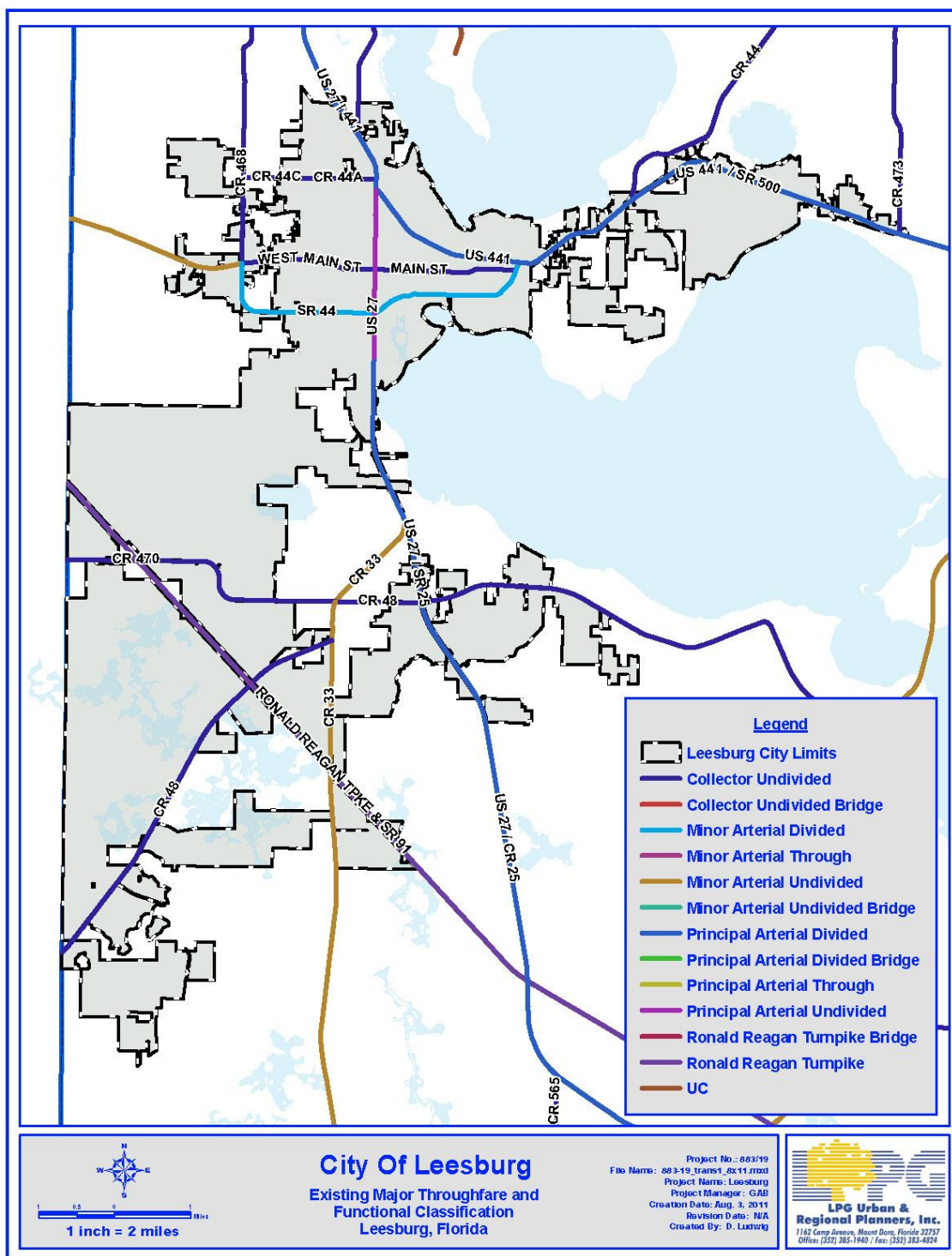
Adopted XXX, 2012 via Ordinance #XXX

Table II-5: Roadway Projects

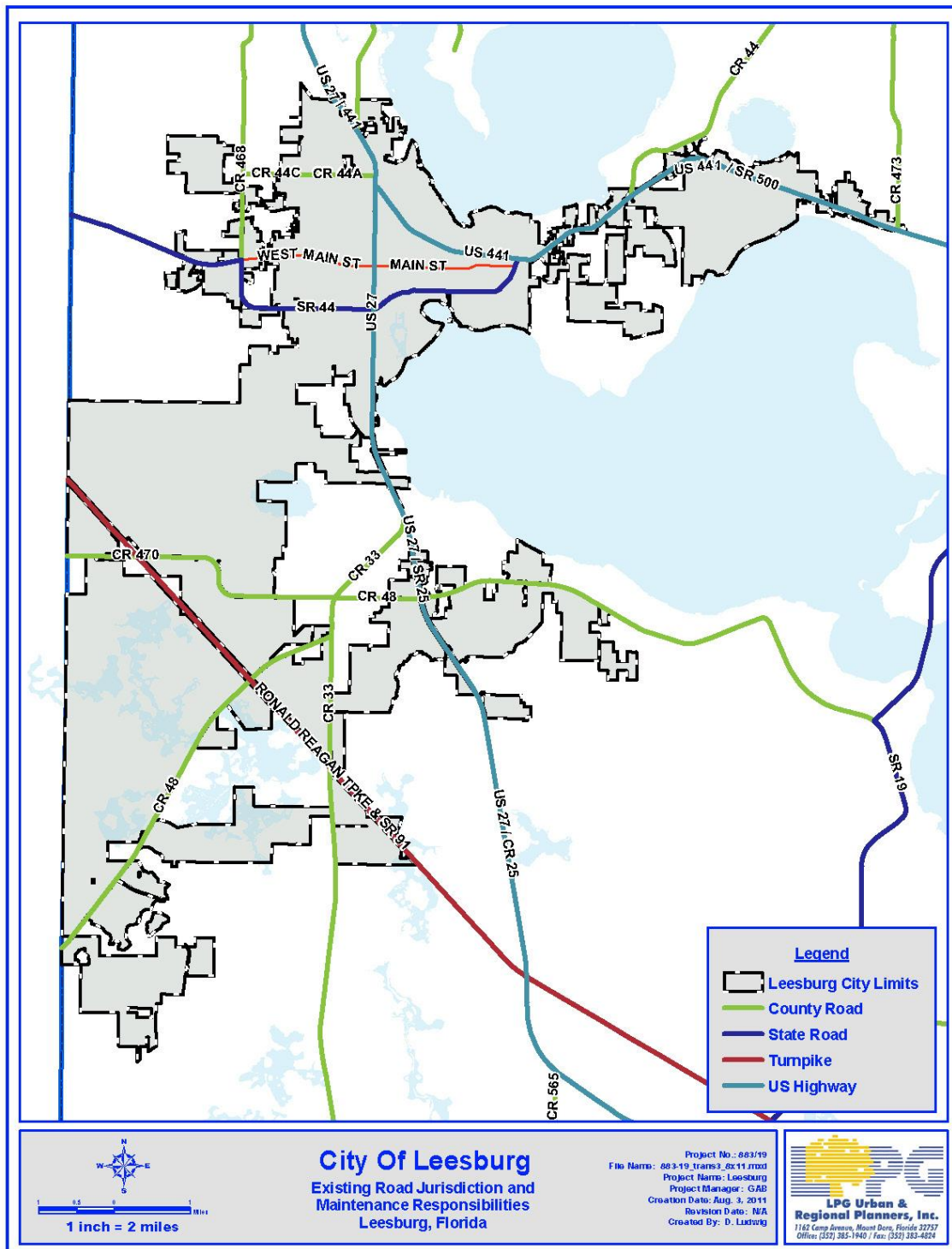
Road	From	To	Improvement	Agency	Phase/Date
STATE					
US 441/SR 500	Perkins Street	SR 44	Widen to 6 lanes	FDOT	2035
SR 44/US 27 intersection			Upgrade intersection	FDOT	2035
SR 500 US 441	Perkins Street	SR 44	Widen fro 4 to 6 lanes	FDOT	2035
US 441	SR 44	SR 46	Widen from 4 to 6 lanes	FDOT	2035
LAKE COUNTY CAPITAL IMPROVEMENT PROGRAM					
CR 48	East of US 27	CR 33	Widen from 2 to 4 lanes	County	2035
CR 470	Sumter County Line	CR 33	Widen from 2 to 4 lanes	County	2035
CR 44	W of N. Silver Lake	Poe Street	resurface	County	2011
CR 48	Sumter County	CR 33	resurface	County	2011
Sleepy Hollow Road	Sunnyside Drive	.3 miles S of US 441	resurface	County	2011

Source: Lake Sumter MPO, Lake County

Map II- 1: Existing Major Thoroughfare and Functional Classification



Map II- 2: Existing Road Jurisdiction and Maintenance



City Of Leesburg
Existing Number of Lanes

Leesburg, Florida

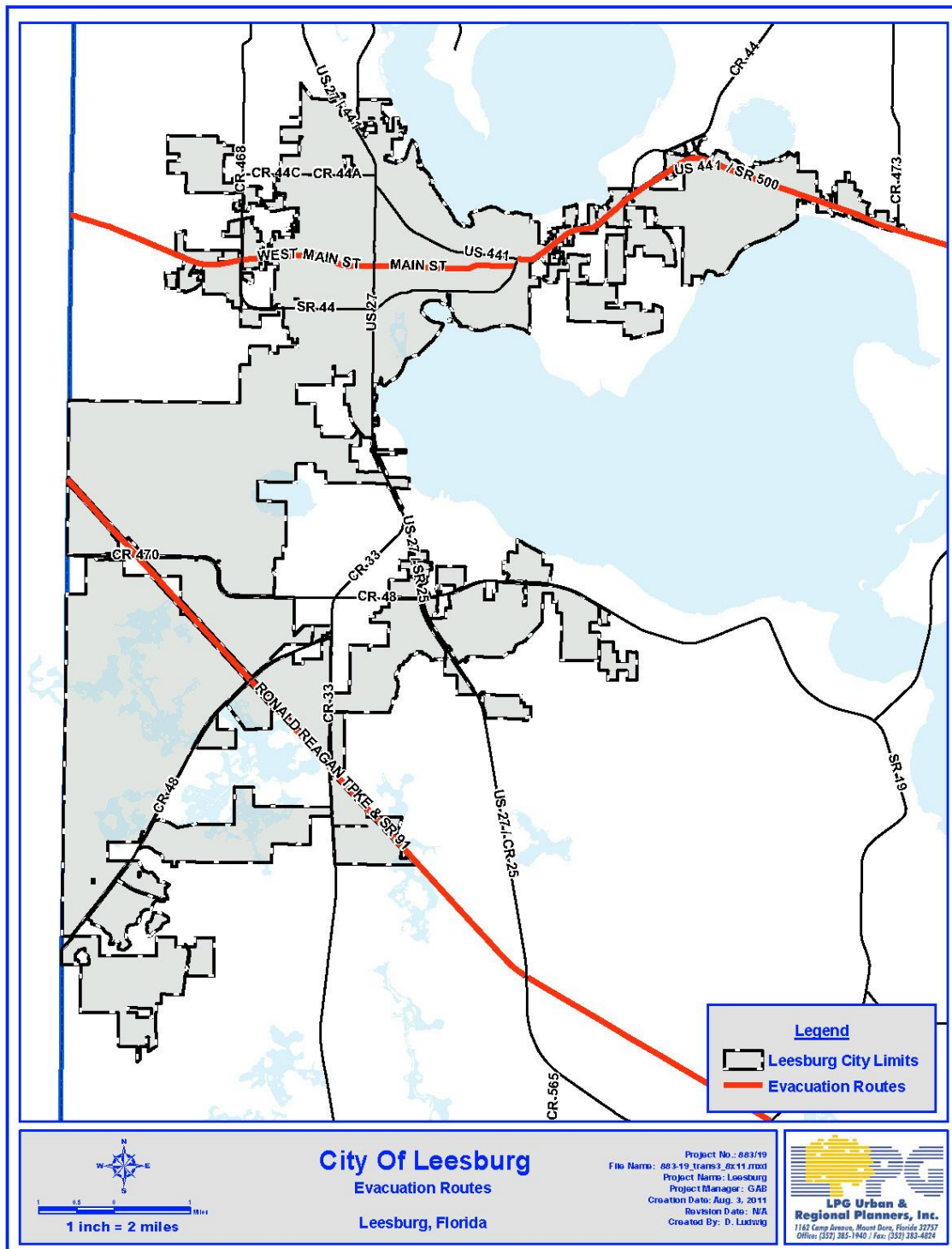
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- Leesburg City Limits
- 2 Lanes
- 3 Lanes
- 4 Lanes
- 6 Lanes

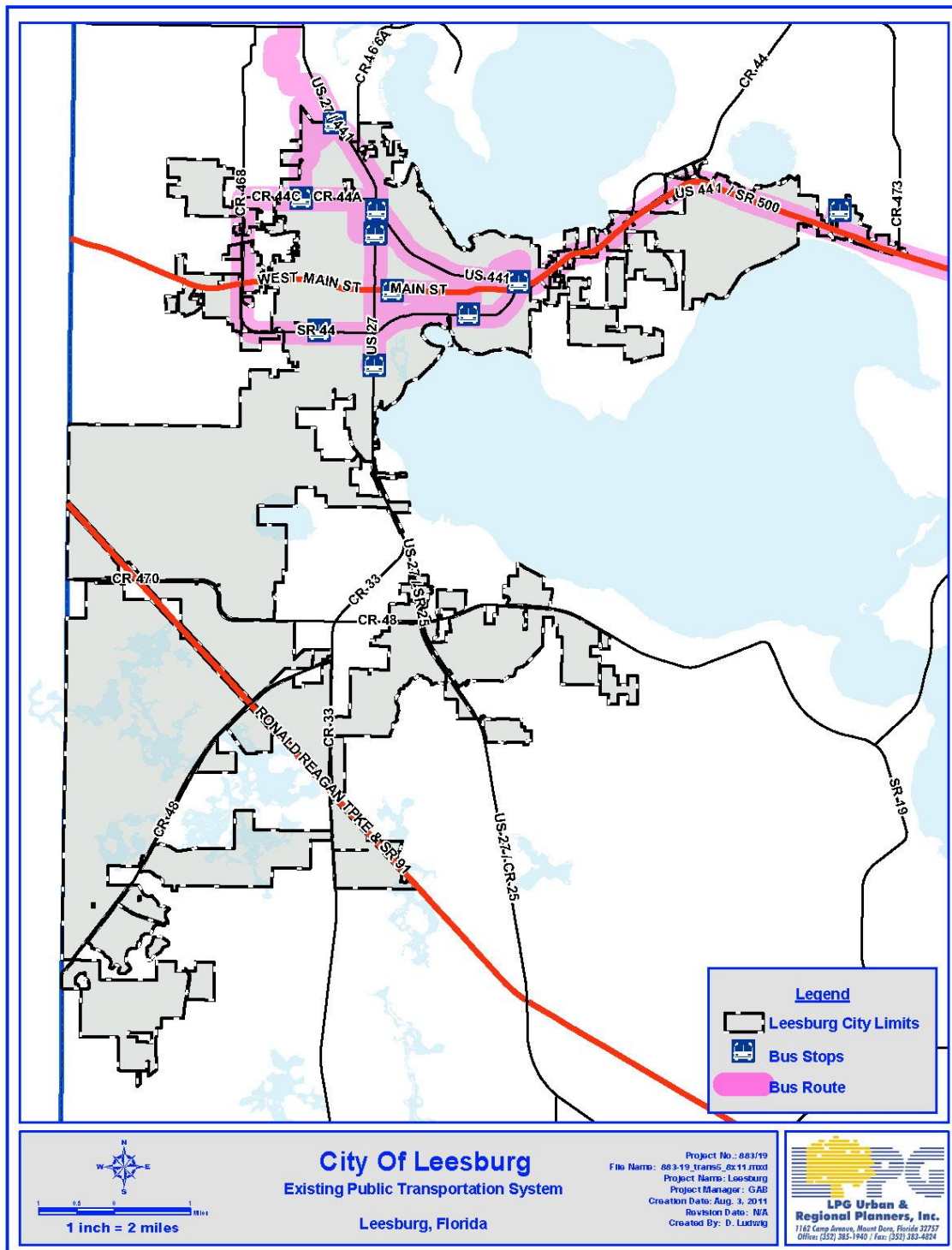
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Project Name: Leesburg
Project Manager: GAB
Creation Date: Aug. 3, 2011
Revision Date: N/A
Created By: D. Ludwig

LPG Urban & Regional Planners, Inc.
1162 Camp Avenue, Mount Dora, Florida 32757
Office: (352) 385-1940 / Fax: (352) 383-8028

Map II- 4: Evacuation Routes



Map II- 5: Public Transit System



City Of Leesburg
Existing Bicycle & Trails Facilities

Leesburg, Florida

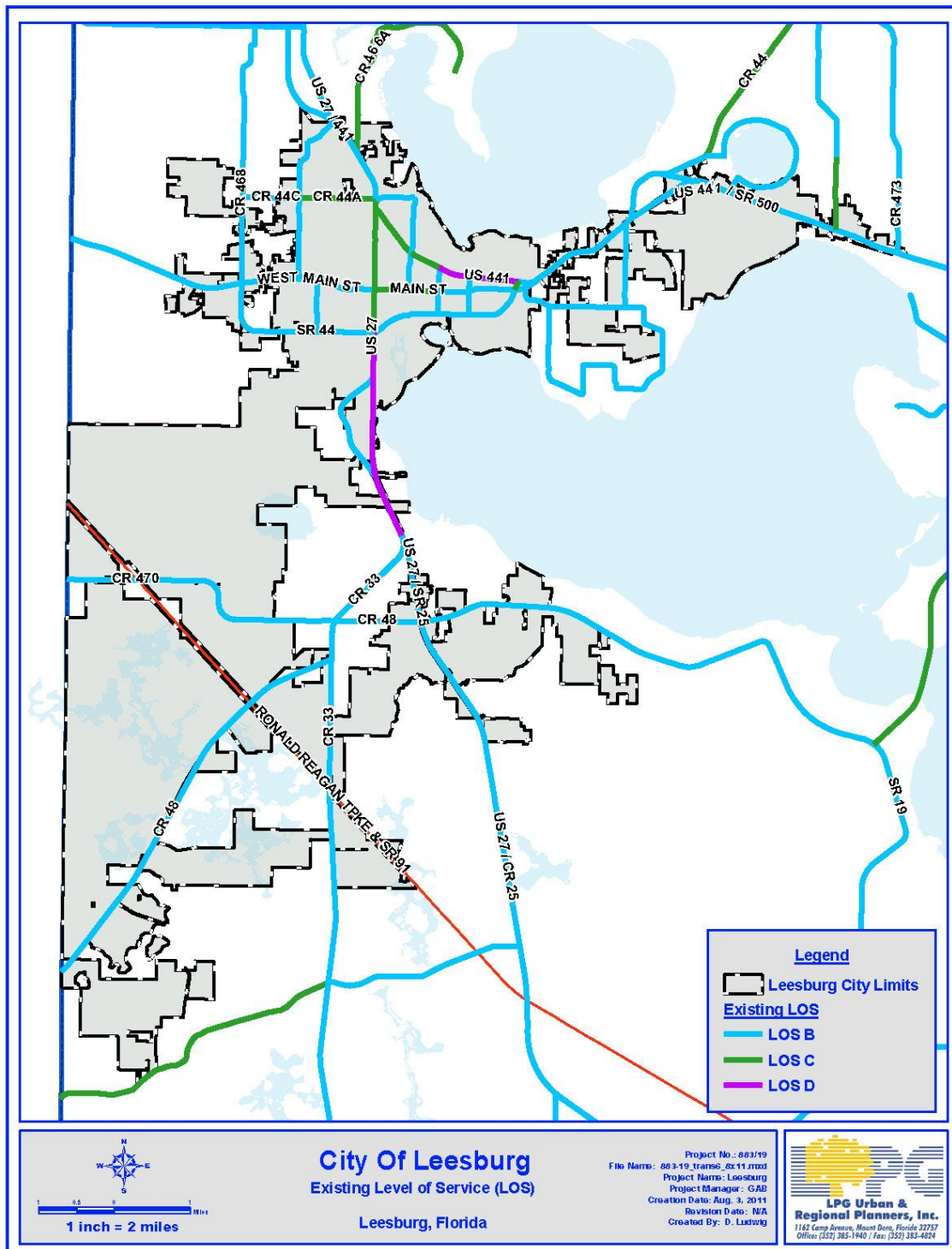
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- Leesburg City Limits
- Leesburg Bike Trails
- Leesburg Trails
- MPO Trails Master Plan

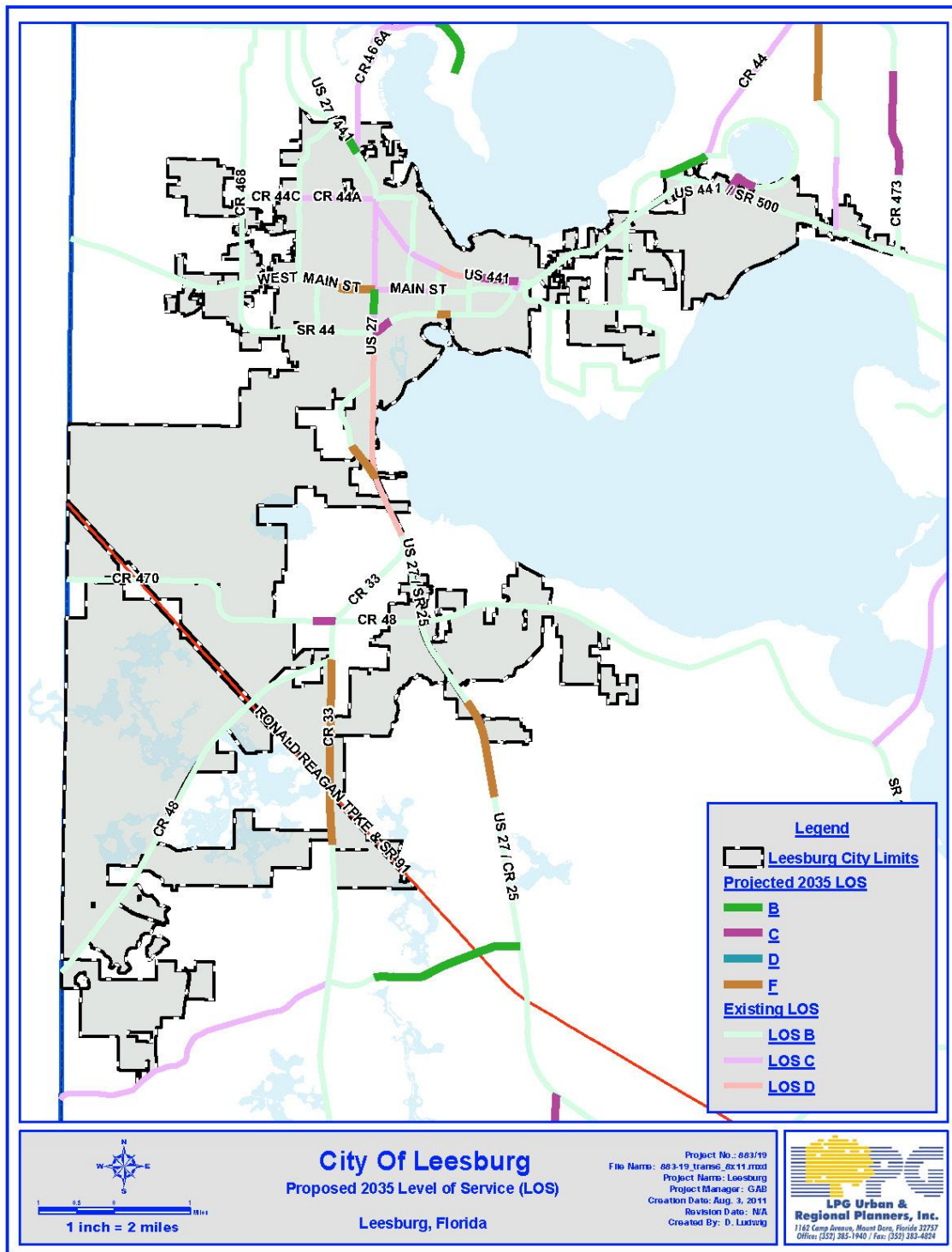
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File Name: 003-19_trails_0211.mxd
Project Name: Leesburg
Project Manager: GAB
Creation Date: Aug. 3, 2011
Revision Date: N/A
Created By: D. Ludwig

LPG Urban & Regional Planners, Inc.
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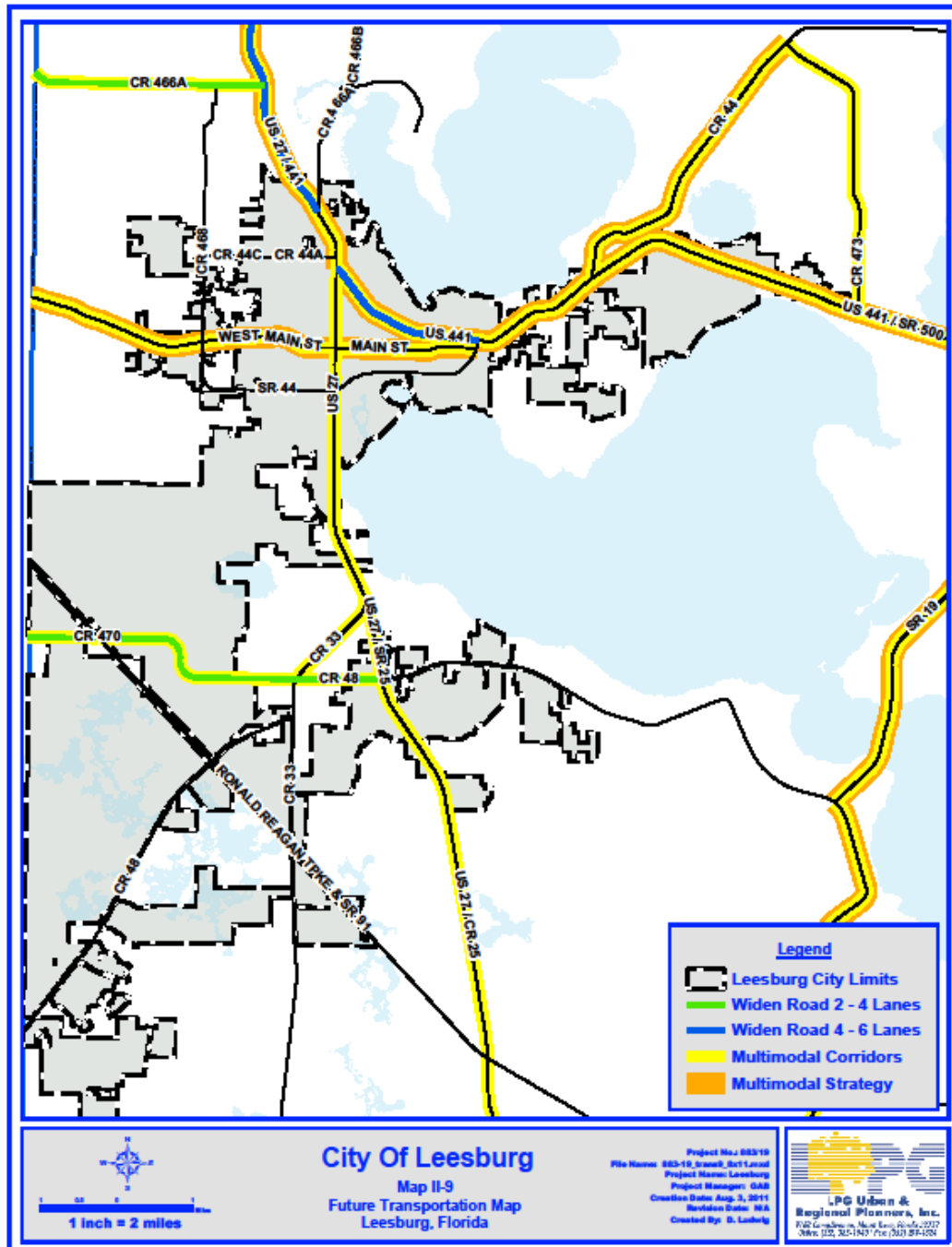
Map II- 7: Base Year Level of Service



Map II- 8: Projected Levels of Service 2035



Map II- 9: Future Transportation Map



Policy 1.1.6: Lake County has adopted the following maximum through-lane standards for the below listed roadway classifications:

Road Classification	Maximum Through-Lane Standard
Principal Arterial	6
Minor Arterials	6
Major Collectors	4
Minor Collectors	4
Local Roadways	2
Scenic Roadways	2

Objective 1.2: ***Roadway Connectivity.*** The City shall, through the development review process, require the provision of an efficient traffic circulation pattern.

Policy 1.2.1: Within developments that incorporate traditional Neighborhood Design principals, the City shall ensure compliance with established design cross-sections for local roads found in the Land Development Code. These cross-sections accommodate narrower rights-of-way and roadway widths consistent with traditional neighborhood development.

Policy 1.2.2: The City shall require that roadways be dedicated to the public when there is a compelling public interest for the roadways to connect with existing public roadways.

Policy 1.2.3: The City shall require that subdivisions of 100 units or more have at least two (2) points of access open to motor vehicle traffic.

Policy 1.2.4: New subdivisions shall be required to “stub-out” to adjoining undeveloped lands to promote road connectivity, and to connect to existing roadways that are “stubbed-out” at their boundaries.

Policy 1.2.5: The City shall ensure compliance with access management standards in the Land Development Code⁵ to provide appropriate access to the City’s transportation system. Standards include the requirement of joint-use driveways and/or cross access easements to access sites.

Policy 1.2.6: The City shall preserve the movement function of the major thoroughfare system by requiring development of parallel frontage roads

or cross access easements to connect developments as they are permitted along major roads.

Policy 1.2.7: The City shall review through the Development Review Committee process all proposed development for consistency with future transportation projects listed on Table II- and for the implementation of the City's Bicycle Master Plan, when adopted.

Objective 1.2A: *Level of Service.* The City of Leesburg shall establish level of service standards for non-automobile modes of transportation, including pedestrian, bicycle and transit. These level of service standards are not regulatory, but provide a basis to monitor congestion and coordinate improvements.

Policy 1.2A.1: Pedestrian Level of Service Classifications. The City of Leesburg hereby adopts the following level of service classifications for pedestrian facilities within its jurisdiction:

LOS	Facility	Amenities	Conflicts	Maintenance
A	Sidewalks continuous on both sides. Min. width 5'.	Buffer (min. width 3'), shade trees, benches & pedestrian scale lighting.	Crossing width 18.3 m (60') or less. Posted speed 40 mph or less. Medians present. Crosswalks, signals and crossing guards at major intersections.	No problems.
B	Sidewalks continuous on one side. Min. width 5'.	Intermittent shade trees and benches. Pedestrian scale lighting.	Crossing width 18.3 m (60') or less. Posted speed 40 mph or less. Crosswalks and signals at major intersections.	No problems.
C	Sidewalks non-continuous on both sides. Min. width 4'.	Intermittent shade trees, benches & lighting.	Posted speed 45 mph or less. Crosswalks and signals at major intersections.	Minor or infrequent problems.
D	Sidewalks non-continuous on one side. Min. width 4'.	Intermittent shade trees & lighting.	Posted speed 45 mph or less. Limited crosswalks and signals.	Minor or infrequent problems.
E	Sporadic provision. Min. width 3'.	None	Limited crosswalks and signals. No reduced speed limits.	Major or frequent problems.
F	None	None	No signalized crossings or reduced speed limits.	N/A

Policy 1.2A.2: Pedestrian Level of Service. The City of Leesburg has jurisdiction in setting the LOS for pedestrian facilities and adopts LOS D.

Policy 1.2A.3: Bicycle Level of Service Standards. The City of Leesburg hereby adopts the following level of service classifications for bicycle facilities within its jurisdiction:

LOS	Facility	Connectivity	Conflicts	Maintenance
A	Completely separated facility designed for the exclusive use of bicycles and pedestrians with minimal interruption by motorists. Minimum width 8 ft.	Bike paths connect residential areas with education facilities, recreation areas, retail and employment areas.	Minimal.	No problems.
B	Restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles. Minimum five-foot striped and/or signed lane.	Bike paths connect residential areas with education facilities, recreation areas, retail and employment areas.	Vehicle parking and cross flows by pedestrians and motorists permitted. Posted speed 40 mph or less. Crosswalks and signals at major intersections.	No problems.
C	Restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles. Minimum five-foot striped and/or signed lane.	Bike paths connect residential areas with majority of education facilities, recreation areas, retail and employment areas.	Vehicle parking and cross flows by pedestrians and motorists permitted. Posted speed 45 mph or less. Crosswalks and signals at major intersections.	Minor or infrequent problems.
D	Restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles. Plus designated areas where bicycles share the road with other modes of travel (hard shoulders).	Connection between residential areas, education facilities, recreation areas, retail and employment areas.	Posted speed 45 mph or less. Crosswalks and signals at major intersections.	Minor or infrequent problems.
E	Designated areas where bicycles share the road with other modes of travel (hard shoulders).	Sporadic connection between residential areas and local facilities.	Limited crosswalks and signals. No reduced speed limits.	Major or frequent problems.
F	No designated bike paths.	N/A	No signalized crossings or reduced speed limits.	N/A

Policy 1.2A.4: Bicycle Level of Service. The City of Leesburg has jurisdiction in setting the LOS for bicycle facilities and adopts LOS D.

Policy 1.2A.5: Transit Level of Service Standards. The City of Leesburg hereby adopts the following level of service classifications for transit service and facilities within its jurisdiction:

LOS	Availability	Frequency & Reliability	Safety & Comfort	Accessibility & Affordability
A	Weekday service available	Less than two vehicles per hour, or peak hour provision only. Information on routes, schedules, fares, connections, and destinations available at stops.	Clean bus shelters and enclosed waiting areas. Shade trees and awnings. Well lit waiting areas.	Stops within walking or cycling distance of destinations. Payment options available
B	Weekday service available	Less than two vehicles per hour, or peak hour provision only. Information on routes, schedules, fares, connections, and destinations available online and/or select locations.	Covered shelters at some stops. Well lit waiting areas.	Stops within walking or cycling distance of destinations. Payment options available.
C	Weekday service available	Peak hour provision only. Information on routes, schedules, fares, connections, and destinations available online and/or select locations.	Covered shelters at some stops.	Stops within walking or cycling distance of destinations.
D	Weekday service and paratransit demand service available.	Peak hour provision only. Information on routes, schedules, fares, connections, and destinations available online and/or select locations. Reservations required for paratransit service.	Covered shelters at some stops. Door to door service available with paratransit service.	Stops within walking or cycling distance of destinations.
E	On demand service available	No set route. Reservations required for door to door service.	Door to door service available.	Door to door service available. Fixed price.
F	No service available	N/A	N/A	N/A

Policy 1.2A.6: Transit Level of Service. The City of Leesburg has jurisdiction in setting the LOS for transit facilities and service, and adopts LOS D.

Objective 1.3: ***Multi-Modal System.*** The City shall promote alternative modes of transportation to provide a safe and efficient multi-modal system.

- Policy 1.3.1:** The City shall ensure compliance with the standards in the Land Development Code for access to public transit, bicycle and pedestrian systems. These standards apply to new developments, substantial improvements of existing developments, and to road improvements.
- Policy 1.3.2:** The City shall ensure compliance with the standards in the Land Development Code addressing the provision of bus stops, bike parking and circulation, pedestrian walkways, and handicap accessible facilities within new developments and existing developments undergoing substantial improvements. Site plan reviews will ensure that intermodal transfers are efficiently implemented.
- Policy 1.3.3:** The City shall encourage increased land use densities and mixed uses, consistent with the Future Land Use Element to enhance the feasibility of transit and promote alternative transportation modes.
- Policy 1.3.4:** The City shall maintain the standards incorporated into the Land Development Code that require new development to be compatible with and further the achievement of the Transportation Element. Requirements for compatibility include but are not limited to:
- Orienting pedestrian access to transit centers as well as existing and planned routes.
 - Locating parking to the side or behind the development to provide pedestrian accessibility of building entrances and walkways to the street, rather than separating the building from the street by parking.
 - Providing clearly delineated routes through parking lots to safely accommodate pedestrian and bicycle circulation.
- Policy 1.3.5:** The City shall maintain the standards of roadway design landscaping and streetscaping components in order to enhance the function of collector and higher classification roads.
- Policy 1.3.6:** A Citywide Bicycle and Pedestrian Trails Master Plan has been adopted. Priority has been given to those walkways for which heavy recreational usage is projected, as well as those along roadways between residential areas and schools, which can be implemented concurrently with other roadway improvements.
- Policy 1.3.7:** The City's roadway system management will require implementation and construction of an adequate and safe pedestrian circulation system.

- Policy 1.3.8:** The City shall maintain the standards of the Land Development Code requiring that sidewalks be constructed concurrently with new development, by the developer. Additional sidewalks will be constructed in existing developed areas when requested and funded by the abutting property owners.
- Policy 1.3.9:** The City shall maintain the standards of the Land Development Code requiring that new residential developments with densities of one or more dwelling units per acre provide sidewalks on every street.
- Policy 1.3.10:** Bike paths shall be established on one side of every arterial and collector street with sidewalks established on the opposite side of all arterial streets. The City shall coordinate with the County, the Lake Sumter MPO, and the State to expand the current bicycle system.
- Policy 1.3.11:** Whenever possible, intersections shall be made pedestrian-friendly by limiting the crossing width to 48 feet; use of adequate lighting; adequate timing for traffic signals; and the provision of facilities for the handicapped. The City shall coordinate with FDOT, the Lake Sumter MPO, and the County to implement this policy.

Objective 1.4: ***Rights-of-way.*** The City shall coordinate with the County, the Lake Sumter MPO, and the State to prioritize and acquire future right-of-way in accordance with the future transportation plan.

- Policy 1.4.1:** The City shall adopt the Future Transportation Map to ensure the protection of future rights-of-way.
- Policy 1.4.2:** The City shall continue requiring dedication of needed rights-of-way from new development, through subdivision regulations and applicable local ordinances.
- Policy 1.4.3:** The City shall amend the setback requirements, zoning restrictions and right-of-way protection requirements, if necessary, to make the regulations consistent with this element.
- Policy 1.4.4:** The City shall ensure adequate rights-of-way protection for intersections, interchanges and future park and ride sites in order to retain flexibility for future growth and expansion.
- Policy 1.4.5:** The City shall maintain minimum rights-of-way standards in the Land Development Code for new roadways containing the following provisions:
- Arterial Roadways – 150-foot right-of-way;

- Collector Roadways – 100-foot right-of-way; and
- Local Roads – 60-foot right-of-way (open drainage) and 50-foot right-of-way (curb and gutter).
- Developments that incorporate Traditional Neighborhood Design principles – Determined at the discretion of the City on a case-by-case basis.

Policy 1.4.6: The City shall pursue grant opportunities for median landscaping and road beautification.

Policy 1.4.7: The City shall research alternative funding sources, and utilize those which are feasible, to assist in expediting traffic circulation improvement programs and for the protection and acquisition of rights-of-way for preserving levels of service standards and system performance.

Objective 1.5: ***Public Transit.*** The City shall work with Lake County and the Department of Community Services, Public Transportation Division, to continue to provide a safe and efficient public transit system.

Policy 1.5.1: The City shall encourage land uses and site developments that promote public transit within designated public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership.

Policy 1.5.2: Residential development greater than 200 units or commercial developments over 50,000 square feet shall incorporate space for bus stops. Transit ridership to and from such developments shall be encouraged and further improved by including elements, such as the following:

- Transit stops meeting ADA requirements
- Parking lots and intersections designed with minimum corner turning radii for buses
- Clearly delineated walkways from the building to the transit stop
- Commercial and multi-family buildings and transit stops placed closer to the street.

Policy 1.5.3: The City shall ensure that all roads serviced by public transit routes function at a level of service sufficient to support the bus service.

Policy 1.5.4: The City shall notify the Lake County Department of Community Services, Public Transportation Division, of any proposed traffic generators/attractors submitted to the City for review.

Policy 1.5.5: The City shall work with the Department of Community Services, Public Transportation Division, to improve existing bus stops, and to design new ones to include benches, signage, lights, and protection from the elements. Bus stops shall also be convenient for the handicapped.

Objective 1.6: *Intergovernmental Coordination.* Transportation planning will be coordinated with the FDOT, Lake County, ECFRPC, and the Lake Sumter MPO, neighboring jurisdictions and other transportation related agencies.

Policy 1.6.1: The City Community Development and Public Works Departments shall review subsequent versions of the FDOT Five-Year Transportation Plan, and information and studies provided by the Lake Sumter MPO, in order to update or modify this element, as necessary.

Policy 1.6.2: The Community Development and Public Works Departments shall review updates to the Lake County Transportation Plan, the Lake Sumter MPO, and the Transportation Element of the Lake County Comprehensive Plan, in order to update or modify this element, as necessary.

Policy 1.6.3: The City shall promote a comprehensive transportation planning process that coordinates with the Lake Sumter MPO, state, regional, and local transportation plans.

Policy 1.6.4: The City will support the State, the Lake Sumter MPO, and the County on the establishment of alternative transportation systems, including high speed and commuter rail line systems connecting Lake County with other areas in Florida.

Policy 1.6.5: The City shall coordinate with the County and the Lake Sumter MPO to adjust the population projections used in the model, to make them consistent with the City population projections.

Policy 1.6.6: The City shall coordinate with the FDOT, Lake County, the Lake Sumter MPO, and the municipalities of Lady Lake, Fruitland Park, Tavares, Eustis, and Mount Dora to alleviate, through planning improvements, any existing or projected deficiencies along US 441 and US 27/441. Alternate facilities shall be investigated as alternate routes and the City shall coordinate with the FDOT for the establishment of sections of US 441 as special transportation areas.

Policy 1.6.7: The City of Leesburg shall annually monitor traffic counts and, in coordination with the FDOT, the Lake Sumter MPO, and Lake County, designate future projects in the capital improvements program to assure compliance with level of service standards.

Objective 1.7: ***Concurrency Management System.*** The City shall maintain a Concurrency Management System to ensure that transportation facilities and services needed to support development and redevelopment are available concurrent with the impacts of such development.

Policy 1.7.1: The City shall continue requiring that adequate transportation facilities to maintain the City's level of service standards be available to meet the traffic demands of all new development prior to the issuance of a final development order, in accordance with the Concurrency Management Provisions set forth in the Capital Improvements Element of this Plan.

Policy 1.7.2: The City shall maintain the standards included in the Land Development Code that require submittal of a Transportation Impact Study for all new development which is expected to generate 500 or more trips per day of use, or as deemed necessary by City Staff.

Policy 1.7.3: New developments, regardless of size, shall provide operational improvements to the City's transportation system to mitigate their impacts on the system, to ensure smooth traffic flow, and to aid in the elimination of hazards. Improvements may include, but are not limited to, the addition of turn lanes, deceleration lanes, signage, signals and pavement markings.